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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/740,036	12/18/2003	Yoshiya Hirase	883.0005.U1(US)	2501
29683 7590 11/28/2008 HARRINGTON & SMITH, PC 4 RESEARCH DRIVE, Suite 202 SHELTON, CT 06484-6212			EXAMINER ZHE, MENG YAO	
			ART UNIT 2195	PAPER NUMBER
			MAIL DATE 11/28/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/740,036	<b>Applicant(s)</b> HIRASE, YOSHIYA	
	<b>Examiner</b> MENGYAO ZHE	<b>Art Unit</b> 2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 21-42 are presented for examination

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/21/2008 has been entered.

#### ***Double Patenting***

3. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

4. Claims 21-22, 24-28, 30-34, 36-42 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-2, 4-8, 10-14, 16-22 of copending

Art Unit: 2195

Application No. 10740034. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 39-42 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 39-42 are rejected under 35 U.S.C. 101 because the claims recite an “apparatus”; however, it appears that the apparatus would reasonably be interpreted by one of ordinary skill in the art as software, per se, failing to be tangibly embodied or include any recited hardware as part of the system.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 21-25, 27-31, 33-36, 39, 41 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnson, Patent No. 6,834,315 (hereafter Johnson).

8. As per claims 21, 27, 33, Johnson teaches a device architecture for running applications, comprising:

A processor arranged to run an operating system comprising an OS scheduler (Fig 1, unit 4;)

Hardware comprising a Dynamic Configurable Hardware Logic (DCHL) layer comprised of a plurality of Logic Elements (LEs) (Fig 1, unit 14, 16a-c);

interposed between a host computer and said DCHL layer, a TiEred Multi-media Acceleration Scheduler (TEMAS) that cooperates with the host computer for scheduling and configuring the LEs of the DCHL to execute applications (Column 2, lines 45-50; Column 5, lines 50-60) in accordance with inherited application priorities, where the TEMAS operates in response to configuration requests to configure and reconfigure at least some of the plurality of LEs using the inherited application priorities such that at one time a particular LE is scheduled for operation with a first algorithm logic, and at another time the same particular LE is scheduled for operation with a second, different algorithm logic (Column 1, lines 15-30; Column 4, lines 1-10, lines 35-40, lines 55-60: different requests from different application for the same LUN corresponds to different algorithm logics being run on the same LE).

9. As per claims 22, 28, 34, Johnson teaches where the TEMAS is comprised of a Tier-1 scheduler that communicates with the OS scheduler and at least one Tier-2 scheduler interposed between the Tier-1 scheduler and one DCHL configurable device (Fig 1, unit 8 corresponds to Tier-1 while Fig 1, unit 10 corresponds to Tier-2).

10. As per claims 23, 29, 35, Johnson teaches where said Tier-2 scheduler is responsive to priorities inherited from the applications when operating in response to the configuration requests (Column 4, lines 1-10, lines 35-40, lines 55-60).

11. As per claims 24, 30, 36, Jones teaches where said plurality of LEs are disposed within at least one context plane (Fig 1, unit 14).

12. As per claims 25, 31, Johnson teaches an application layer that comprises at least one application (Fig 1, unit 6a), a service layer that comprises said Tier-1 scheduler and said OS scheduler (Fig 1, unit 8), a node layer that comprises said at least one Tier-2 scheduler that is coupled to a scheduling algorithm of said Tier-1 scheduler (Fig 1, unit 10), and a hardware layer that comprises said at least one DCHL configurable device (Fig 1, unit 14).

Art Unit: 2195

13. As per claim 39, Jones teaches an apparatus, comprising:

A plurality of logic elements (Fig 1, unit 16a-c);

A logic element scheduler coupled to said plurality of logic elements (Fig 1, unit 10);

An application scheduler (Fig 1, unit 8) coupled to said logic element scheduler and to an operating system scheduler (Fig 1, unit 4), said application scheduler configured to receive information from said operating system scheduler comprising at least a scheduling order of applications and a priority of the applications and to generate and send application scheduling events to said logic element scheduler in accordance with said received information (Column 2, lines 45-50; Column 5, lines 50-60);

Where said logic element scheduler responds to receipt of scheduling events to configure and reconfigure at least some of the plurality of logical elements such that at on time a particular logic element is scheduled for operation with a first algorithm logic, and at another time the same particular logic element is scheduled for operation with a second, different algorithm logic (Column 1, lines 15-30; Column 4, lines 1-10, lines 35-40, lines 55-60: different requests from different application for the same LUN corresponds to different algorithm logics being run on the same LE).

Art Unit: 2195

14. As per claim 41, Jones teaches where said logic element scheduler is further configured use the priority information when scheduling the application logics onto the logic elements (Column 4, lines 1-10, lines 35-40, lines 55-60).

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 26, 32, 37-38, 40, 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoskins, Patent No. 6,789,132 in view of Johnson, Patent No. 6,834,315 (hereafter Johnson).

17. As per claim 40, Jones does not specifically teach where said application scheduler is further configured to receive feedback of communication overhead from said logic element scheduler for use in adjusting scheduling timing.

However, since feedback information regarding to scheduling timing is commonly practiced at the time of the applicant's invention for the purpose of dynamically improving scheduling, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify the teachings of Jones with the



Art Unit: 2195

specifics of feedback on scheduling timing, because it helps to improve the scheduling algorithm.

18. As per claims 26, 32, 37, 38, 42, Jones teaches that the device may be of any kind, and since wireless device has already been invented at the time of the applicant's invention for the purpose of ease in communication, it would have been obvious to for one having ordinary skill in the art to have Jones device be any kind of device, including a wireless device.

### ***Response to Arguments***

19. Applicant's arguments with respect to claims 21-42 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MENGYAO ZHE whose telephone number is (571)272-6946. The examiner can normally be reached on Monday Through Friday, 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2195

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/

Supervisory Patent Examiner, Art Unit 2195